

Summary of Confirmed Virus Infections – Page One

**ISSUE #1194**

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[www.milwaukee.gov/healthlab](http://www.milwaukee.gov/healthlab)

We welcome any question or comment you have. Please see our "Feedback" form on our website.

**VIRUS ISOLATION: WEEKS OF MAY 10 TO JUNE 8, 2005**

Patient	Symptoms	Specimen	Submitted	Virus
F 20 yr	Pregnant, meningitis	CSF/RMK Cells	06/04/05	Coxsackievirus B5

**NOTE:** As part of our enterovirus surveillance program, we test the local sewage treatment plant influent (raw sewage) each month for culturable viruses. In April of 2005, we detected 10 MPN(I.U.)/L Coxsackievirus B5 and for sewage collected in May, 2005, 42 MPLN(I.U.)/L Coxsackievirus B5. In prior years, early year detections of enteroviruses in sewage was a good predictor of which viruses would be important clinically during the typical enterovirus season in Milwaukee (July-October). Coxsackievirus A4 and echovirus 9 were also detected in May, 2005 sewage. See attached figures for summaries. Coxsackievirus B5 appears to cause local outbreaks on a five year cycle and the last year with significant Coxsackievirus B5 clinical activity was 2000.

F 8 wk	Infant death	Autopsy NP Swab	05/19/05	Rhinovirus
F 5 wk	Infant death	Autopsy NP Swab	05/16/05	Rhinovirus
M 3 mo	Infant death	Autopsy NP Swab	05/03/05	Rhinovirus

**NOTE:** This is an unusual cluster of rhinovirus infections associated with infant deaths. See attached tables for a summary of viruses associated with infant deaths. The Milwaukee Health Department Virus Lab has been working with the Milwaukee County Medical Examiner's Office on the role of viruses in infant deaths since December

1987.

M 5 yr	A.R.D.	NP/MRC-5 Cells	05/17/05	Rhinovirus
M 4 mo	Diarrhea	Stool	05/03/05	Adenovirus
F 70 yr	Eye infection	Cornea Swab/SF Cells	05/02/05	Adenovirus
M 25 mo	Infant death	Autopsy Colon Swab	05/06/05	Rotavirus
F 20 yr	Labial ulcers, genital	Ulcer Swab	06/06/05	HSV (Type 1 CPE)
F 23 yr	STD	Vulva Lesion Swab	06/03/05	HSV (Type 2 CPE)
F 20 yr	STD	Vulva Lesion Swab	06/03/05	HSV (Type 2 CPE)

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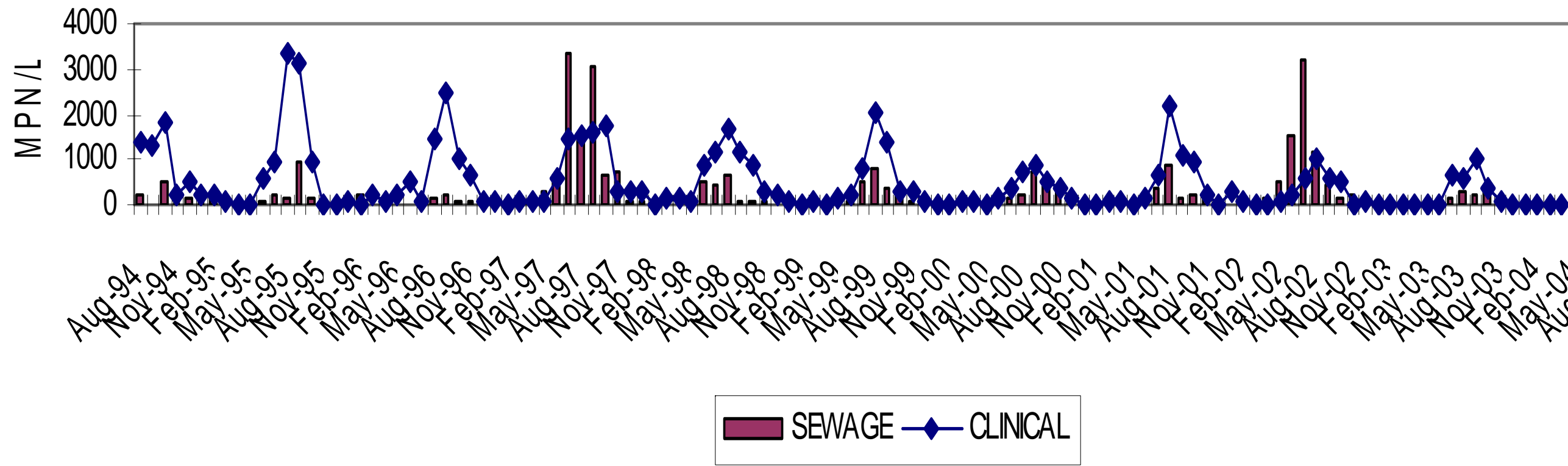
**VIRUS ISOLATION: WEEKS OF MAY 10 TO JUNE 8, 2005**

Patient	Symptoms	Specimen	Submitted	Virus
M 17 yr	Wrist lesion	Lesion Swab	06/02/05	HSV (Type 1 CPE)
F 45 yr	Finger lesion	Lesion Swab	05/27/05	HSV (Type 2 CPE)
M 29 yr	S.T.D.	Penis Lesion Swab	05/25/05	HSV (Type 1 CPE)
F 16 yr	S.T.D.	Genital Lesion Swab	05/20/05	HSV (Type 2 CPE)
M 26 yr	S.T.D.	Pubic Lesion Swab	05/18/05	HSV (Type 2 CPE)
M 31 yr	S.T.D.	Penis Lesion Swab	05/16/05	HSV (Type 2 CPE)
M 22 yr	S.T.D.	Penis Lesion Swab	05/13/05	HSV (Type 2 CPE)
M 23 yr	S.T.D.	Penis Lesion Swab	05/12/05	HSV (Type 2 CPE)
F 35 yr	S.T.D.	Cervical Lesion Swab	05/12/05	HSV (Type 2 CPE)
M 25 yr	S.T.D.	Penis Lesion Swab	05/12/05	HSV (Type 2 CPE)
F 18 yr	S.T.D.	Vaginal Lesion Swab	05/12/05	HSV (Type 1 CPE)
F 17 yr	S.T.D.	Introitus Lesion Swab	05/11/05	HSV (Type 2 CPE)
F 21 yr	S.T.D.	Genital Lesion Swab	05/11/05	HSV (Type 1 CPE)
M 41 yr	S.T.D.	Groin Lesion Swab	05/11/05	HSV (Type 2 CPE)
F 21 yr	S.T.D.	Genital Lesion Swab	05/10/05	HSV (Type 1 CPE)
F 27 mo	Oral lesion	Lip Lesion Swab	05/10/05	HSV (Type 1 CPE)
M 69 yr	S.T.D.	Penis Lesion Swab	05/09/05	HSV (Type 2 CPE)

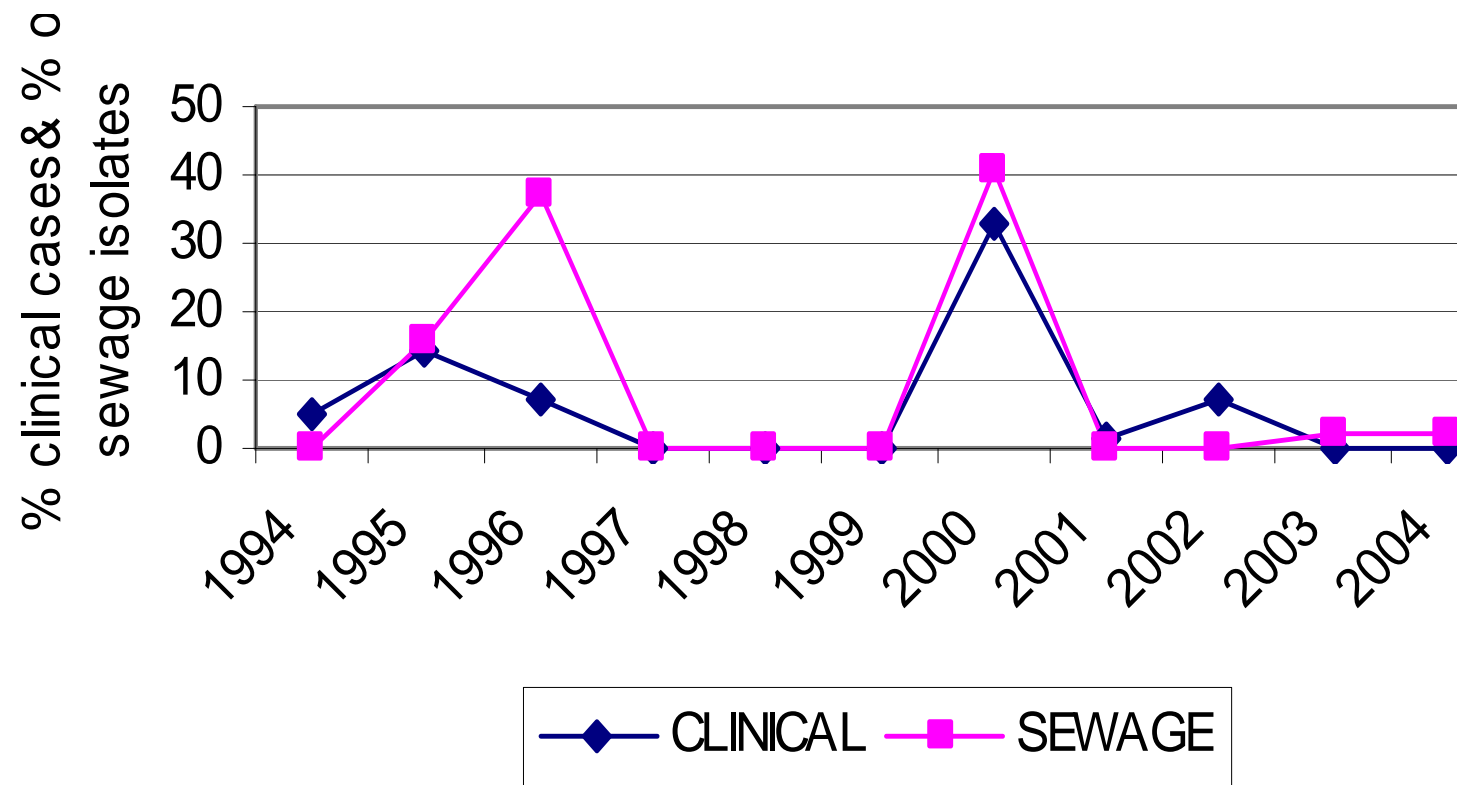
**SEROLOGY: NONE**


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Chief Virologist

Comparison of clinical enterovirus cases with sewage MPN/L for Jones Island WWTP: Aug 1994 -2004



## Comparison of Annual Coxsackievirus B5 Clinical Cases and Sewage Isolates



City of Milwaukee Virus Laboratory/Medical Examiner Summary 2004			
“Autopsy Specimens on Infant Death Cases” (<24 months of age)			
Number Tested Cases			54
Number of Cases with Virus Detected			14 (14/64 = 25.9%)
A.	Viruses Detected by Site:		
1.	By site:	(a)	Lung tissue or swab-4 x cases
		(b)	NP Swabs –8x cases
		(c)	Colon Swabs –11 x cases
		(d)	Both lung (or NP) and colons positive – also counted separately –6x cases
		(e)	Colons with more than 1 virus – 0 x cases
		(f)	Unusual cases: 5 cases: 1 x HPeV-3: 2X HPeV-1(echo-22) 2 x dual infections; rhino plus rota & para-3 plus rota
B.	Specific Viruses Detected (Cases)		
	I.	Poliovirus	0
	II.	ECHOvirus	4(E25; HPeV-3 ;2X HPeV-1)
	III.	Coxsackie B	0
	IV.	Coxsackie A	0
	V.	HSV-1	0
	VI.	HSV-2	0
	VII.	CMV	0
	VIII.	Para-3	1
	IX.	REOVirus	0
	X.	ROTAvirus	3
	XI.	ADENOVirus	4
	XII.	ADENO 40/41	0
	XIII.	Rhinovirus	4
	XIV.	Influenza A	0
	XV.	Influenza B	0
	XVI.	Respiratory Syncytial Virus	0
	XVII.	Para-1	0
	Total Enterovirus cases –4(E25, HPeV-3, 2X HPeV-1)		

	<b>2004</b>	<b>2004</b>
	<b>Cases Tested Per Month</b>	<b>Cases Positive Per Month</b>
January	5	1
February	3	1
March	5	0
April	7	1
May	4	2
June	9	2
July	2	2
August	5	1
September	4	1
October	2	0
November	3	2
December	5	1
	<b>54</b>	<b>14</b>

**Summary Through 2004  
VIRUSES AND INFANT DEATHS  
MILWAUKEE HEALTH DEPT. VIRUS LAB  
AND  
MILWAUKEE CO. MEDICAL EXAMINER'S OFFICE**

**December 1987 through December 2004**

Summary - Total Cases Studies – 1,277	
Positive Cases	430 (33.7%) 370 Colons and 107 Lungs(or NP)
Enterovirus	199 (96 Polio: 60 ECHO includes 17 HPeV-1 or echo-22: 39 Cox;1xEV-71: 3xHPeV-3)
Adenovirus	99
Rotavirus	88
HSV	8(7 HSV-1; 1 HSV-2)
RSV	6
CMV	24
Para-3	7
Rhinovirus	9
REOVirus	5
Influenza-A	1
Influenza-B	2
Adeno 40/41	14
Para-1	1

City of Milwaukee Virus Laboratory/Medical Examiner's Office –  
STUDY OF VIRUSES ASSOCIATED WITH INFANT DEATHS :

For every autopsy, at least lung tissue and colon swab were provided. Specimens were inoculated into cell cultures for isolation of virus and colon swabs were also tested for Rotavirus and Adeno 40/41 by EIA. For the 1275 cases studied, >90% of the children were  $\leq$  12 months of age at the time of death.